

Application Number 10/647,839
Amendment dated February 28, 2008
Response to Office Action mailed November 28, 2007

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REMARKS

This response is responsive to the Office Action dated November 28, 2007. Applicant has not amended any of the claims. Claims 1-6, 8-16, 18, 19, 21-27, 32-37, 39-51, 53, and 54 remain pending.

Claim Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1-6, 8-16, 18, 19, 21-27, 32-37, 39, 40, 42-44, 46-51, 53 and 54 under 35 U.S.C. 103(a) as being unpatentable over Ho et al. (US 6,910,148) in view of Dinker et al. (US 7,206,836). Applicant respectfully traverses the rejection. The applied references fail to disclose or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the claimed invention.

For example, Ho in view of Dinker lacks any teaching to suggest, for example, a method comprising establishing a routing communication session in accordance with a routing protocol between a primary routing control unit of a first router and a second router, wherein the routing communication session is established to have a first restart time in the event of a session failure, as recited by Applicant's previously presented claim 1.

Further, Ho in view of Dinker lacks any teaching to suggest reestablishing the routing communication session with a secondary routing control unit of the first router upon failure of the primary routing control unit, wherein the routing communication session is initially reestablished to have a second restart time that is substantially the same as the first restart time, as recited by Applicant's previously presented claim 1.

Moreover, Ho in view of Dinker lacks any teaching to suggest dynamically renegotiating the second restart time to a third restart time that is less than the first restart time upon identifying the second router as supporting dynamic renegotiation, also as recited by Applicant's previously presented claim 1.

In particular, Applicant notes the invention as set forth, for example, in previously presented claim 1 requires **negotiation** and **renegotiation** of a second restart time between the secondary routing control unit of the first router and the second router upon failure of the primary routing control unit of the first router. That is, the first router (or the "failed node" in Dinker as according to the Examiner) actively, or better stated, **proactively** negotiates both the second and

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third restart times upon a failover from the primary control unit of that failed router to the secondary control unit of that same failed router. To further illustrate, Applicant directs the Examiner to the following reproduced portion of Applicant's FIG. 1.

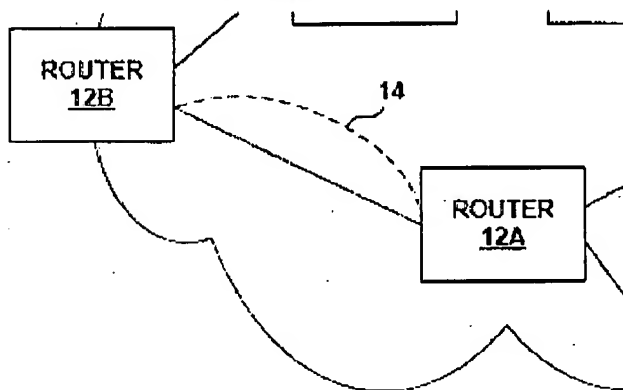


FIG. 1

According to paragraph [0031] of Applicant's specification, router 12A implements the techniques set forth in Applicant's claim 1, and therefore may be considered the first router. Router 12B, according to paragraph [0032], may be considered the second router recited in claim 1. Upon the failure of router 12A (which the Examiner argues is considered synonymous with Dinker's "failed node"), paragraph [0031] states that session 14, originally established by the now failing primary routing control unit of router 12A, goes down or fails. Paragraph [0032] provides that failed node 12A communicates with the surviving or functional router 12B to reestablish session 14, and actively and dynamically negotiates the second restart time for the session and then possibly renegotiates the second restart time to a third restart time. In each instance, paragraph [0032] states the negotiation and renegotiation occur between failed router 12A (the "failed node") and surviving neighboring router 12B (the "surviving node"). Moreover, in each instance it is the failed router that specifies the restart times to be used by the surviving router.

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Negotiation

Contrary to the Examiner's characterization of either Ho or Dinker, neither Ho or Dinker, whether alone or when combined, disclose any teaching in which two devices negotiate a restart time, let alone renegotiating a second restart time between a failed node and a surviving node. Instead, Ho makes clear that any timeout period for detecting a session failure continues to run and is left unchanged. See, e.g., Ho at col. 6, ln. 34-35. In fact, Ho emphasizes that the failover of the control units of one node in Ho is entirely and completely undetected by the other node. In this manner, Ho specifically teaches that the nodes do not communicate after failure of one node, and therefore Ho lacks any teaching directed to the renegotiation between a failed router and a surviving router, requirements required by Applicant's independent claims.

Dinker does not correct this deficiency of Ho. Quite the opposite, Dinker discloses a self-healing distributed data system cluster having first and second nodes, where the first node detects a failure of a second node and chooses, without negotiating with the failed node, a timeout period. See, e.g., Dinker at col. 6, lines 8-26 and col. 9, lines 4-18. In the preceding portion of Dinker, the surviving node selects the timeout value without any communication with the failed node whatsoever. Thus, the timeout selection requires a single node, while negotiation and renegotiation, as recited by the claim, in accordance with its plain meaning as used in the claims and specification requires an interaction of a plurality of nodes to set a single value. The Examiner's arguments on page 3 of the Office Action, that in Dinker "a node may dynamically *select* different timeouts depending on which node failed and/or the type of failure detected ..." (Emphasis added) is unpersuasive and is irrelevant with respect to Applicant's claim elements. Again, the cited portion of Dinker quoted by the Examiner refers to a single, surviving node selecting a timeout in isolation from other nodes. Dinker therefore does not cure the deficiencies noted above with respect to Ho.

Renegotiation by the Failed Node

Further, neither Ho nor Dicker, whether alone or when combined, disclose the above described proactive nature of Applicant's invention with respect to the failed router as set forth in previously presented claim 1. Ho, in fact, completely negates negotiation altogether, as described above, by "maintaining" routing protocol states in real-time within both the primary and standby

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controller systems so that any failure goes undetected by the surviving router. See, e.g., Ho Abstract. As above, no negotiation is required by the standby routing control unit of the failing router in Ho because switchover is intended to occur such that a neighboring surviving router does not detect the failure.

Again, Dicker does not cure this deficiency of Ho. As described above, Dicker discloses that the surviving or neighboring node monitors the failing node, and upon detecting a failure, the surviving node determines a timeout value. Quite the contrary, Applicant's claim 1 requires a secondary routing control unit of the failed node to reestablish the routing session to have a second restart time and renegotiate the second restart time to a third restart time with the surviving or neighboring node. Disregarding, for the present argument, that Dicker fails to disclose negotiating at all (as discussed above), Dicker further discloses a method that is completely opposite from Applicant's claims in that the Dicker technique requires that the surviving node determine the timeout value after detecting the failure. That is, the Dicker surviving node is reacting to the session failure. Applicant's claim 1 clearly requires that the secondary routing protocol of the **failed node**, not the surviving node, negotiate and renegotiate the second restart time for the session. Consequently, Dicker fails again to cure the above deficiency of Ho.

No Motivation to Combine

In closing, Applicant notes that the Examiner's motivation to combine is improper in light of the teachings of Ho and Dicker. Ho, as described above, teaches away from negotiation with the specific goal of achieving a fast failover such that the neighboring router does not even detect a failure. In fact, the entire premise of Ho is that the failed node recovers before the surviving node realizes the failed node has failed. That is, the surviving node is unaware of the failure of the failed node. Thus, Ho negates any need for the Dicker method, whereby the surviving node monitors and detects a failure of the failed node and reactively determines a timeout value upon detecting the failure.

Yet, the Examiner mistakenly assumes that Ho and Dicker can be combined, stating on page 3 of the Office Action that: "The motivation is applied to transmit multimedia information via routers. Fast switchover will be done in realtime as taught by Ho et al. in abstract." The Ho

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fast switchover, however, negates the need for Dicker and therefore obviates the motivation to combine. Thus, the Examiner's motivation to combine is improper as one with skill in the art would not combine two contrary references, such as Ho and Dicker, to reach Applicant's invention. Instead, one with skill in the art would choose either Dicker or Ho, neither of which, as described above, disclose Applicant's invention as set forth in any of Applicant's previously presented independent claims 1, 10, 32 and 42.

While the above arguments are made with respect to independent claim 1, Applicant submits that these arguments apply equally to the other independent claims 10, 22, 32, and 42, as these claims recite substantially the same requirements discussed in the above arguments. Furthermore, Applicant contends that those claims 2-6, 8, 9, 11-16, 18, 19, 21, 23-27, 33-37, 39-41, 43-51, 53, and 54 that depend on the above independent claims also benefit from the above arguments made with respect to those claims.

Applicant however notes that the Examiner has failed to address other requirements specified in Applicant's claims. For example, previously presented dependent claim 2 requires automatically renegotiating the second restart time to the first restart time upon recovery of the primary routing control unit. There is no suggestion in Ho of increasing the restart time for a routing protocol session from the second restart time back to the first restart time at all, let alone when a primary routing control unit of the failed router recovers. Even if some routing protocols support dynamic negotiation, as argued by the Examiner, this does not provide suggestion or motivation for changing the restart times based on the conditions recited by Applicant's claim 2. Dicker does not cure this deficiency for the reasons set forth above.

For at least these reasons, the Examiner has failed to establish a prima facie case for non-patentability of Applicant's claims -6, 8-16, 18, 19, 21-27, 32-37, 39, 40, 42-44, 46-51, 53 and 54 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

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CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

Date:

By:

February 28, 2008

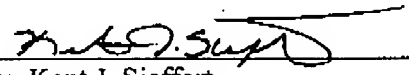
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